

Lab: Determining Buoyancy of a Hydrocarbon based mini-Bouy.

(note: use the back side to take notes on how to determine significant figures)

Determine the Volume of the candle in front of you in cm^3 , using the correct number of significant figures.

*Write down the
equation for the volume
of a cylinder here*

Record the mass of the candle _____ grams

Use this space to determine the *density* of the candle.

*What is the equation for
density?*

Use this space to determine how many mL of water should be displaced by the mass of your candle.

Fun fact: 1 mL = 1 cm^3

In the space at right, divide the volume of water being displaced by the volume of your candle.

Determine the decimal equivalent
(use your calculators)

Now multiply the previous value by the HEIGHT of your candle and draw a line (with a permanent marker) that distance UP from the bottom of the candle. What does this line represent?

Now fill a graduated cylinder to about the 70-80 mL mark. (write this number down at Initial Fill mark). _____ mL

Test your candle and estimate how many millimeters above or below your Marked Water line rests. Record the NEW fill line on the graduate cylinder.

_____ mL

Submerge the candle completely to MEASURE through displacement the actual volume of the candle. _____ mL

Use the Space below to calculate the percent error of your calculated volume to the measured volume. _____ % error